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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

DEAN, RAYMOND S

ART UNIT

PAPER NUMBER

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5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/832,051

Applicant(s)

SARKKINEN ET AL.

Examiner

Raymond S Dean

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 - 10 and 13 - 17 is/are rejected.
- 7) ☒ Claim(s) 11 and 12 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2, 3, and 4.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1 – 3, 8, 10, and 17 are rejected under 35 U.S.C. 102(a) as being anticipated by Chapman et al. (5,926,468).

Regarding Claim 1, Chapman teaches a method for resetting a communication connection between a first communication device and a second communication device in a cellular radio system, comprising the steps of: detecting the need for resetting the communication connection (Column 5 lines 3 – 18), transmitting from the first communication device to the second communication device a first piece of information indicating the need for resetting the communication connection (Column 5 lines 3 -18, the receiving entity receives an indication to reset thus this means that said indication was transmitted by the transmitting entity), performing a resetting procedure at the second communication device (Column 5 lines 19 – 36, the reset acknowledgement field is set to a specific value when the resetting procedure is complete), transmitting from the second communication device to the first communication device a second piece of information indicating the completion of the resetting procedure with respect to the second communication device (Column 5 lines 19 – 36, the reset acknowledgement

field is set to a specific value when the resetting procedure is complete) and inserting into a certain piece of information transmitted between the first communication device and the second communication device an indication of an effective number of certain resetting operations associated with a certain detected need for resetting the communication connection (Column 5 lines 3 – 18, the Data Link Reset Command field has a number for resetting operations associated with a detected need for resetting the communication link).

Regarding Claim 2, Chapman teaches all of the claimed limitations recited in Claim 1. Chapman further teaches inserting into a certain piece of information, which is transmitted from the first communication device to the second communication device and indicates the need for resetting the communication connection, a sequence number the value of which remains the same - after the need for resetting the communication connection has been detected - from the first step of transmitting from the first communication device to the second communication device a first piece of information indicating the need for resetting the communication connection to the next step of faultlessly receiving, at the first communication device, from the second communication device a second piece of information indicating the completion of the resetting procedure with respect to the second communication device (Column 5 lines 3 – 36, the Data Link Reset Command field has a specific number or value when a need for resetting the communication link is detected and it will keep that same value until the reset procedure is performed and the Data Link Reset Acknowledge field is updated reflecting said reset procedure).

Regarding Claim 3, Chapman teaches all of the claimed limitations recited in Claim 2. Chapman further teaches a sequence number that is a single sequence number bit, the value of which remains the same - after the need for resetting the communication connection has been detected - from the first step of transmitting from the first communication device to the second communication device a first piece of information indicating the need for resetting the communication connection to the next step of faultlessly receiving, at the first communication device, from the second communication device a second piece of information indicating the completion of the resetting procedure with respect to the second communication device (Column 5 lines 3 – 36).

Regarding Claim 8, Chapman teaches all of the claimed limitations recited in Claim 2. Chapman further teaches at the second communication device, checking whether a certain piece of information, which is transmitted from the first communication device to the second communication device and indicates the need for resetting the communication connection, has a sequence number the value of which is the same as the sequence number of an already received piece of information, which was transmitted from the first communication device to the second communication device and indicated the need for resetting the communication connection, and only as a response to a negative finding in said checking, performing a complete resetting procedure at the second communication device (Column 5 lines 3 – 36, the Data Link Reset Command field has a specific number or value when a need for resetting the communication link is detected and it will keep that same value until the reset procedure

is performed and the Data Link Reset Acknowledge field is updated reflecting said reset procedure).

Regarding Claim 10, Chapman teaches all of the claimed limitations recited in Claim 1. Chapman further teaches the step of inserting into a certain piece of information, which is transmitted from the second communication device to the first communication device and indicates the completion of the resetting procedure with respect to the second communication device, an indication of the result of performing completed resetting operations at the second communication device (Column 5 lines 19 – 36).

Regarding Claim 17, Chapman teaches a communication device for communicating between another communicating device within a cellular radio system over a communication connection (Figure 2, Column 4 line 6, CDPD is a cellular radio system) comprising: means for detecting a need for resetting the communication connection (Column 5 lines 3 – 18), transmission means for transmitting to the other communication device first pieces of information indicating the need for resetting the communication connection and second pieces of information indicating the completion of the resetting procedure, receiving means for receiving from the other communication device first pieces of information indicating the need for resetting the communication connection and second pieces of information indicating the completion of the resetting procedure (Column 5 lines 3 – 36), resetting means for performing a resetting procedure for the communication connection (Column 5 lines 19 – 36), and means for inserting into a certain piece of information transmitted between it and the other

Art Unit: 2684

communication device an indication of an effective number of certain resetting operations associated with a certain detected need for resetting the communication connection (Column 5 lines 3 – 18, the Data Link Reset Command field has a number for resetting operations associated with a detected need for resetting the communication link).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4 – 7, 9, and 13 - 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chapman et al. (5,926,468) in view of Carsello (5,754,586).

Regarding Claim 4, Chapman teaches all of the claimed limitations recited in Claim 2. Chapman does not specifically teach a frame structure number.

Carsello teaches a frame structure number (Column 3 lines 10 – 14).

Chapman and Carsello both teach wireless communications devices that transmit and receive frames of data thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the frame structure number taught in Carsello in the wireless system of Chapman such that there is optimal frame synchronization between said wireless communications devices.

Regarding Claim 5, Chapman in view of Carsello teaches all of the claimed limitations recited in Claim 4. Carsello further teaches a frame structure number indicator that is a complete value of a frame structure number (Column 3 lines 10 – 14, the frame structure number could be represented by the use of all seven bits which means that it would be a complete value).

Regarding Claim 6, Chapman in view of Carsello teaches all of the claimed limitations recited in Claim 4. Carsello further teaches a frame structure number indicator that is a shortened derivative from a complete value of a frame structure number (Column 3 lines 10 – 14, the frame structure number could be represented by the use of 6 bits or less, which is a shortened derivative of the complete seven bits).

Regarding Claim 7, Carsello teaches all of the claimed limitations recited in Claim 6. Carsello further teaches a frame structure number indicator that is a group of least significant bits from a complete value of a frame structure number and consists of at least one bit (Column 3 lines 10 – 14, since there are seven bits the least significant bit will be the first bit and the most significant bit will be the seventh bit).

Regarding Claim 9, Chapman teaches all of the claimed limitations recited in Claim 8. Carsello further teaches increasing the value of a certain frame structure number (Column 3 lines 10 – 14, the frame structure number could start at 1 and increase to 127).

Regarding Claim 13, Chapman teaches all of the claimed limitations recited in Claim 10. Chapman further teaches a response to receiving from the first communication device at the second communication device an indication of the need for

resetting the communication connection, setting a particular value in the Data Link Reset Acknowledgement field at the second communication device, inserting said value into a certain piece of information, which is transmitted from the second communication device to the first communication device and indicates the completion of the resetting procedure with respect to the second communication device, and as a response to receiving from the second communication device at the first communication device an indication of the completion of the resetting procedure with respect to the second communication device, setting said value at the first communication device (Column 5 lines 3 – 36).

Chapman does not specifically teach increasing the value of a frame structure number.

Carsello teaches increasing the value of a frame structure number (Column 3 lines 10 – 14, the frame structure number could start at 1 and increase to 127).

Chapman and Carsello both teach wireless communications devices that transmit and receive frames of data thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the increasing frame structure number method taught in Carsello in the wireless system of Chapman such that there is optimal frame synchronization between said wireless communications devices.

Regarding Claim 14, Chapman in view of Carsello teaches all of the claimed limitations recited in Claim 13. Carsello further teaches an indicator of the increased value of said frame structure number that is the increased value of said frame structure number itself (Column 3 lines 10 – 14, the frame structure number could start at 1 and

increase to 127).

Regarding Claim 15, Chapman in view of Carsello teaches all of the claimed limitations recited in Claim 13. Carsello further teaches an indicator of the increased value of said frame structure number that is a shortened derivative of the increased value of said frame structure number (Column 3 lines 10 – 14, 127 is an increased value that corresponds to seven bits, 6 bits or less corresponds to 65 or less which is a shortened derivative of 127).

Regarding Claim 16, Carsello teaches all of the claimed limitations recited in Claim 15. Carsello further teaches an indicator of the increased value of said frame structure number is a group of least significant bits from a complete value of said frame structure number and consists of at least one bit (Column 3 lines 10 – 14, since there are seven bits the least significant bit will be the first bit and the most significant bit will be the seventh bit).

Allowable Subject Matter

5. Claims 11 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Regarding Claim 11, Chapman in view of Carsello teaches as a response to receiving from the first communication device at the second communication device an indication of the need for resetting the communication connection, increasing the value

Art Unit: 2684

of a frame structure number, inserting said increased value into a certain piece of information, which is transmitted from the second communication device to the first communication device and indicates the completion of the resetting procedure with respect to the second communication device, as a response to receiving from the second communication device at the first communication device an indication of the completion of the resetting procedure with respect to the second communication device, and setting said increased value into a value which is equal to that indicated by said indicator which was received from the second communication device. The prior art of record, however, fails to specifically show initializing a certain sequence number at both the first and the second communication devices, increasing the value of a frame structure number and said sequence number by equal amount at the second communication device, inserting the increased value of said sequence number into a certain piece of information, which is transmitted from the second communication device to the first communication device and indicates the completion of the resetting procedure with respect to the second communication device, as a response to receiving from the second communication device at the first communication device an indication of the completion of the resetting procedure with respect to the second communication device, calculating the difference between the sequence number received within said indication and the sequence number previously stored at the first communication device, and increasing a frame structure number at the first communication device by the amount of said difference. Claim 12 depends on Claim 11 therefore examiner gives same reason as set forth above.

Conclusion

6. Any inquiry concerning this communication should be directed to Raymond S. Dean at telephone number (703) 305-8998.

If attempts to reach examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung, can be reached at (703) 308-7745. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703) 872-9314 (for Technology center 2600 only)

Hand – delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377



NAY MAUNG
SUPERVISORY PATENT EXAMINER